Tuesday, April 10

6.30 P.M. Dinner to the council at the University Club (tendered by the Kansas City Section).

8.15 P.M. Council meeting. Assembly room, Hotel Muehlebach.

Wednesday, April 11

10 A.M. General meeting of the society in the Hotel Muehlebach.

Addresses of Welcome.

Hon. George H. Edwards, mayor of Kansas City;

Dr. Frank Strong, chancellor of the University of Kansas.

Response:

Julius Stieglitz, president American Chemical Society.

General Papers:

"The Economic Resources of the Kansas City Zone." Arthur J. Boynton.

2 P.M. Public Session. Hotel Muehlebach.

"Petroleum and Natural Gas." Dr. H. P. Cady, chairman.

8 P.M. Smoker. Hotel Muehlebach.

All sessions and division meetings of the society will be held, as far as possible, in the Hotel Muehlebach, on the mezzanine floor.

Tuesday night, April 10. Council dinner and meeting.

Wednesday morning, April 11. Opening session.

Wednesday afternoon, April 11. Public session. "Petroleum and Natural Gas."

Wednesday night, April 11. Smoker.

Thursday morning, April 12. Division meetings.

Thursday afternoon, April 12. Division meetings.

Thursday night, April 12. Banquet.

Friday morning, April 13. Division meetings.

Friday afternoon, April 13. Excursions.

Friday night, April 13. Open.

Saturday morning, April 14. Excursions.

The following are the addresses of the divisional secretaries:

Agricultural and Food Chemistry: Glen F. Mason, H. J. Heinz Co., Pittsburgh, Pa.

Biological Chemistry: I. K. Phelps, Bureau of Chemistry, Washington, D. C.

Fertilizer Chemistry: F. B. Carpenter, Virginia-Carolina Chemical Co., Richmond, Va.

Industrial Chemists and Chemical Engineers: S. H. Salisbury, Jr., Northampton, Pa.

Organic Chemistry: H. L. Fisher, Columbia University, New York City.

Pharmaceutical Chemistry: George D. Beal, Chemistry Building, University of Illinois, Urbana, Ill.

Physical and Inorganic Chemistry: Earl V. Millard, Institute of Technology, Boston, Mass.

Water, Sewage and Sanitation: H. P. Corson, U. S. Public Health Service, Grove City, Pa.

SCIENTIFIC NOTES AND NEWS

The following fifteen candidates have been selected by the council of the Royal Society to be recommended for election into the society: Dr. J. H. Ashworth, Mr. L. Bairstow, Professor G. A. J. Cole, Mr. C. F. Cross, Dr. H. D. Dakin, Professor A. S. Eve, Professor H. Jackson, Professor J. S. Macdonald, Professor J. W. Nicholson, Dr. R. H. Pickard, Mr. C. T. Regan, Dr. R. Robertson, Dr. E. J. Russell, Mr. S. G. Shattock and Professor F. E. Weiss.

The membership of the Botanical Committee of the National Research Council has just been completed, as follows: From the National Academy, J. M. Coulter (chairman), D. H. Campbell, R. A. Harper; from the American Association for the Advancement of Science (Committee of One Hundred), George T. Moore, B. E. Livingston, L. R. Jones; from the Botanical Society of America, Erwin F. Smith, Edward M. East and H. H. Bartlett.

At the request of the National Research Council there has been appointed at the College of the City of New York a research committee, consisting of Professor Charles Baskerville, chairman; Professors T. A. Storey, F. G. Reynolds, Geo. G. Scott, J. G. Coffin, F. E. Breithut and A. N. Goldsmith.

The Adams prize at Cambridge has been awarded to Mr. J. H. Jeans, M.A., sometime fellow of Trinity, for an essay on "Some Problems of Cosmogony and Stellar Dynamics." No election has been made to the Isaac Newton Studentship.

Mr. John W. Titcomb, fish and game commissioner of Vermont, has been appointed by the conservation commission fish culturist for the state of New York, to fill the vacancy caused by the death of Dr. Tarleton H. Bean.

Professor A. A. Benedict has been appointed associate professor in physics in the University of South Carolina, filling the va-

cancy caused by the resignation of Dr. Lucian, who will take up research work for the Green and Bauer Company, of Hartford, Conn.

PROFESSOR J. C. MERRIAM, of the University of California, will give a paper on "A Plan for Cooperation in Research among the Scientific Societies of the Pacific Coast" in the symposium, under the direction of Dr. D. T. MacDougal, before the Stanford meeting of the Pacific Division of the American Association for the Advancement of Science.

GENERAL GEORGE W. GOETHALS gave an illustrated lecture on the Panama Canal at Cornell University on March 5.

DR. W. D. BANCROFT, professor of physical chemistry at Cornell University, addressed the Indiana branch of the American Chemical Society, at Indianapolis, on March 9, on "Contact Catalysis"; and on March 10, Professor Bancroft spoke before the Society of Sigma Xi of Indiana University on "Colloid Chemistry."

DR. WILLIAM S. THAYER, of the Johns Hopkins University, delivered an address before the New York Academy of Medicine, on March 15, on "The Significance of Some Common Deviations from the Ordinary in Cardiac Function."

MR. N. H. DARTON, of the U. S. Geological Survey, recently lectured to Lehigh University on "The Grand Canyon of Arizona, a Great Object Lesson in Geology and Geography." A large number of new views and other illustrations were shown.

PROFESSOR C. M. CHILD, of the department of zoology of the University of Chicago, will give the principal address before the Science Section of the Colorado Educational Association at the spring meeting to be held at Teachers College in Greeley on March 30 and 31.

DR. WILLIAM R. BROOKS, director of Smith Observatory, and professor of astronomy at Hobart College, recently delivered his illustrated lecture on "The Wonders of the Heavens," at the Rhode Island State College at Kingston.

THE magnetic-survey vessel, the *Carnegie*, under the command of J. P. Ault, arrived at Buenos Aires, with all well on board, on March 2. Leaving San Francisco on November 1, 1916, he proceeded to Easter Island, thence around the Horn to Buenos Aires. The scientific work was successfully accomplished on the entire trip.

THE daily papers report that Vilhjalmur Stefansson, the Arctic explorer, is wintering with the gasolene schooner *Polar Bear* at Prince of Wales Strait, according to news brought by a Northwest police expedition from Fort McPherson. Stefansson, who passed last summer exploring the new land discovered north of Prince Patrick Island, is hopeful that the ice will break up early this spring and permit him to make the northeast passage and to sail up the St. Lawrence River to Montreal.

PROFESSOR WILLIAM BEEBE, of the faculty of mathematics of Yale University, died on March 11, in New Haven, in the sixty-sixth year of his age. He was graduated from Yale in 1873, and had been teaching there since 1876.

DR. JOHN S. MCKAY, head of the department of physics and mathematics of the Packer Collegiate Institute, Brooklyn, from 1890 to his retirement last summer, has died at the age of sixty-seven years.

THE library of the American Institute of Mining Engineers has received a gift of $100,000 from Mr. James Douglas, of Arizona.

A CHAPTER of Sigma Gamma Epsilon, the national collegiate fraternity devoted to geology, mining and metallurgy, was installed in the University of Nebraska on the evening of March 3. Communications intended for the national officers should be addressed to Mr. Harry E. Crum, Lawrence, Kansas.

A CIRCULAR letter giving 39 generic names in Protozoa, Cœlenterata, Trematoda, Cestoda, Cirripedia, Tunicata and Pisces, chiefly Linnæan, which have been proposed for inclusion in the Official List of Zoological Names, has been mailed to the leading scientific institutions, colleges, laboratories, etc., in various countries; in addition 20 copies have been sent

to each commissioner for distribution in his own country. A copy will be sent to any person sufficiently interested, who will apply to Dr. C. W. Stiles, secretary to International Commission on Zoological Nomenclature, U. S. National Museum, Washington, D. C.

SIR ALFRED KEOGH, director-general of the British army medical service, presiding at a lecture at the Royal Institute of Public Health on February 14, is reported in *Nature* to have stated that in France at that moment there were only five cases of enteric fever and eighteen cases of paratyphoid fever, with seventy or eighty doubtful cases. He attributed this result to inoculation, and the general good health of the army to good food, in addition to careful sanitation. The health of the army at all the fronts was said to be better than the ordinary health of the army in peace-time.

DR. LEO J. FRACHTENBERG, of the Bureau of American Ethnology, returned to Washington, D. C., on February 4, after a stay of almost two and a half years in Oregon and Washington, where he investigated the ethnology, mythology and languages of the various Indian tribes scattered throughout these states. Dr. Frachtenberg's researches in this area have resulted in evidence that three of the most important linguistic stocks of the northwest, namely, the Salish, Wakashan and Chimakuan, have ultimately been derived from one common stock, which he proposes to call the Mosan group. This name has been suggested by the fact that the numeral 4 (*mós* or *bós*) occurs in each of these stocks in one form or another. While working on the social organization of the Chimakuan tribes Dr. Frachtenberg observed an entirely new feature in the social life of the American Indians. This feature consists of the existence of professional orders, whose members do and must follow one and the same profession. Thus there are special orders for fishermen, hunters, sealers, whalers, shamans, rainmakers, etc. During the last two weeks of his stay in the west Dr. Frachtenberg succeeded in raising a fund of $25,000 as a nucleus for the purposes of organizing a Museum of Natural History in the city of Portland, Oregon. On January 29 he succeeded in starting a similar movement in Spokane, Washington, and it is hoped that the city of Spokane will in the near future have a museum specially devoted to the American Indians of that region.

PRELIMINARY estimates by John D. Northrop, of the United States Geological Survey, Department of the Interior, indicate that the quantity of crude petroleum produced and marketed in the old fields of the United States in 1916 was 292,300,000 barrels. This quantity is greater by 4 per cent. than the corresponding output in 1915, which reached the record-breaking total of 281,104,104 barrels. Mr. Northrop estimates that 38 per cent. of the 1916 total came from the Oklahoma-Kansas field, 30 per cent. from California, and the remaining 32 per cent. from the Appalachian, Lima-Indiana, Illinois, north Texas, north Louisiana, Gulf coast, and Rocky Mountain fields.

IN 1916 Alaska mines made a mineral production valued at $50,900,000. These are the advance figures issued by the United States Geological Survey, Department of the Interior, and are based on estimates made by Alfred H. Brooks. The output of Alaska mines in 1915, which was greater than that of any previous year, had a value of $32,850,000, and the increase in 1916 was therefore over 54 per cent. It was the product of the copper mines that so greatly swelled the mineral production of the year. This amounted to 120,850,000 pounds, valued at $32,400,000. There was also, however, an increase in gold output, which in 1916 was $17,050,000 and in 1915 was $16,700,000. Of the gold produced in 1916, $10,640,000 is to be credited to the placer mines. Alaska also produced in 1916 silver, lead, tin, antimony, tungsten, petroleum, marble, gypsum and coal to the value of $1,300,000. During 32 years of mining Alaska has produced $351,000,000 in gold, silver, copper and other minerals. Of this amount $278,000,000 represents the value of the gold, and $68,000,000 that of the copper.

UNIVERSITY AND EDUCATIONAL NEWS

THE legislature of Kansas appropriated $1,524,000 for the University of Kansas for the